

EMPLOYMENT

Senior Data Scientist **AstraZeneca** **Oct 2022 – Present**

I help researchers to explore and gain biological insights in large-scale data sets through new visualization tools & interaction methods. Therefore, I work in a joint research environment at AstraZeneca Bioinformatics team to integrate large dataset into user-friendly data visualization platform using ReactJS and Neo4J.

Postdoctoral researcher **Umeå Universitet** **July 2020 - Oct 2022**

I integrated population-wide re-sequencing, Genome-Wide Association Study (GWAS) data and RNA-sequencing gene expression networks, including the production of new analysis and visualization tools. In addition, I used different Human-Computer Interaction (HCI) design principles and visualization techniques to improve the user experience (UX) and Graphical User Interface (GUI) of our tools.

PhD **Umeå Universitet** **Oct 2014 - Jun 2020**

PhD in Computational Science with specialization in Biology was focused on developing new tools and resources to enable non-specialists who lack bioinformatics skills to access, explore and extract new biological knowledge from a number of large-scale projects.

Research Engineer **Umeå Universitet** **Sep 2010 - Oct 2014**

Lead developer at PlantGenIE which is an interoperable web resource for searching, visualizing and analyzing genomics and transcriptomics data for different plant species. Currently, it includes several web resources such as popgenie.org, congenie.org, atgenie.org and eucgenie.org.

Software Engineer	JoyGroup, Almere, Netherlands	Jan 2010 – Sep 2010
Software Engineer	Anterasoftware Pvt Ltd, Texas, USA	Jan 2009 - Aug 2010
Software Engineer	GMI Pvt Ltd, Bellevue, USA	Jan 2008 - Dec 2008
Software Engineer	London School of Marketing (LSM), London, UK	Jan 2007 - Jan 2008
Software Engineer	Virtusa Pvt Ltd, Colombo, Sri Lanka	Nov 2006 - Dec 2007

EDUCATION

PhD in Computational Science with specialization in Biology: Umeå University, OCT 2014-JUN 2020.

MSc. in Human Computer Interaction: Umeå University - Sweden, FEB 2009-MAY 2011.

BSc. in Computer Science: University of Colombo - Sri Lanka, FEB 2004-AUG 2008.

Diploma in Management CIMA-UK 2002-2007.

Adobe Flex Certified Expert 2006.

LANGUAGES AND TECHNOLOGIES

- React JS, PHP, Python, Perl, SQL, R, C#; jQuery, Bootstrap, Angular, Larval
- Neo4J, MySQL, MongoDB, PostgreSQL; TensorFlow, Google AI; VS Code, Adobe tools; NPM, Git

SELECTED PUBLICATIONS (4 out of 22)

- **Mannapperuma C.** Human-computer interaction principles for developing web-based genomics resources. Umeå Universitet; 2020. <http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-153032>
- **Mannapperuma C,** Street N, Waterworth J. Designing usable Bioinformatics Tools for specialized users. In: ICITS'19 - The 2019 International Conference on Information Technology & Systems. Quito, Ecuador; 2019. http://doi.org/10.1007/978-3-030-11890-7_62
- **Mannapperuma C,** Waterworth J, Street N. GenIE-Sys: Genome Integrative Explorer System. bioRxiv [Internet]. 2019; Available from: <https://doi.org/10.1101/808881>
- **Mannapperuma, C.,** Sundell, D., Netotea, S., Delhomme, N., Lin, Y.-C., Sjödin, A., ... Street, R. N. (2015). The Plant Genome Integrative Explorer Resource: PlantGenIE.org. The New Phytologist, 208(4), 1149–1156. <http://doi.org/10.1111/nph.1355>

REFERENCES

- x Associate Professor Anna Croon Fors; Umeå university; acrooninformatik.umu.se; 0907866135;0703603050
- x Professor John Waterworth; Umeå university; jwworth@informatik.umu.se; 0907866731;0738111440
- x Professor Stefan Jansson;Umeå Plant Science Centre; stefan.jansson@umu.se; 0907865354; 0703220136